Version No.				ROLL NUMBER						
0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9

Applied HVACR SSC-I SECTION – A (Marks 06) Time allowed: 10 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. **Do not use lead pencil.**

Q.1 Fill the relevant bubble for each part. All parts carry one mark.

1)	Alphabet 'V' in 'HVACR' stands							
	(a) Volume	\bigcirc	(c) Velocity	\bigcirc				
	(b) Ventilation	\bigcirc	(d) Vacuum	\bigcirc				
2)	Ability of a body to do work is known as:							
	(a) Heat	\bigcirc	c) Energy	\bigcirc				
	(b) Work	\bigcirc	d) Power	\bigcirc				
3)	The change of phase from vapour to liquid is known as a:							
	(a) Evaporation	\bigcirc	(c) Expansion	\bigcirc				
	(b) Compression	\bigcirc	(d) Condensation	\bigcirc				
4)	Pressure and temperature of refrigerant rises during:							
	(a) Evaporation	\bigcirc	(c) Expansion	\bigcirc				
	(b) Compression	\bigcirc	(d) Condensation	\bigcirc				
5)	Which of the following refrigerant type is harmful for ozone:							
	(a) CFC	\bigcirc	(c) HFC	\bigcirc				
	(b) Hydrocarbons	\bigcirc	(d) HCFC	\bigcirc				
6)	Phase change occurs at:							
	(a) Different Temperature	\bigcirc	(c) Constant Temperature	\bigcirc				
	(b) Low Temperature	\bigcirc	(d) High Temperature	\bigcirc				



Federal Board SSC-I Examination Applied HVACR

Time allowed: 2.00 hours Total Marks: 24

Note: Answer any seven parts from Section 'B' and attempt any two questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

SECTION – B (Marks 14)

Q.2 Attempt any SEVEN parts from the following. All parts carry equal marks. Be brief and to the point. $(7 \times 2 = 14)$

- i. Define scope of HVACR.
- ii. Define Refrigeration.
- iii. Enlist sources of HVACR.
- iv. Define swaging.
- v. Define Flaring.
- vi. Define Heat.
- vii. Enlist methods of heat transfer.
- viii. Enlist different types of pressure measuring devices.
- ix. What is the role of expansion in refrigeration cycle?
- x. Describe working principle of evaporator.

SECTION - C (Marks 10)

Note: Attempt any **TWO** questions. All questions carry equal marks.

 $(2 \times 5 = 10)$

- Q.3 Write a detailed note on energy and its types.
- **Q.4** Write a note on the following:
 - i. Pascal's law
 - ii. Dalton's Law.
- **Q.5** Explain working principle of refrigeration cycle.
